

Request for Continued Examination  
Date: January 14, 2008

Serial No. 10/848,922  
Atty. Docket No. GP142-02.UT

**Amendment to the Claims**

This listing of claims replaces all prior versions, and listings, of the claims in the application.

**Listing of Claims:**

Claims 1-131 (Canceled)

132. (New) A detection probe for use in determining the presence of *Trichomonas vaginalis* in a test sample, said probe comprising a target binding region consisting of the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4, wherein said probe forms a hybrid stable for detection with nucleic acid derived from *Trichomonas vaginalis* but not from *Trichomonas tenax* under assay conditions which include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M, and wherein said probe does not include bases in addition to the bases of said target binding region which participate in stable hybridization the *Trichomonas vaginalis* derived nucleic acid under said assay conditions.

133. (New) The probe of claim 132, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3 or SEQ ID NO:4.

134. (New) The probe of claim 132, wherein said probe is a self-hybridizing probe under said assay conditions and in the absence of nucleic acid derived from *Trichomonas vaginalis*.

135. (New) The probe of claim 134, wherein said probe comprises a pair of interacting labels.

136. (New) The probe of claim 132, wherein said probe is up to 50 bases in length.

137. (New) The probe of claim 132, wherein said probe comprises a detectable label.

138. (New) The probe of claim 132, wherein said target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety or a pseudo peptide backbone joins at least a portion of the bases of said target binding region.

139. (New) A composition comprising said probe of claim 132 hybridized to nucleic acid derived from *Trichomonas vaginalis*.

140. (New) A probe mix comprising said probe of claim 132 and a helper probe.

141. (New) The probe mix of claim 140, wherein the base sequence of said helper probe consists of the base sequence of SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:23, SEQ ID NO:24, SEQ ID NO:25, SEQ ID NO:26, SEQ ID NO:27 or SEQ ID NO:28.

142. (New-Withdrawn) A method for determining the presence of *Trichomonas vaginalis*, said method comprising the steps of:

- a) contacting a test sample with said probe of claim 132; and
- b) determining whether said hybrid has formed as indication of the presence of *Trichomonas vaginalis* in said test sample.

143. (New) A detection probe for use in determining the presence of *Trichomonas vaginalis* in a test sample, said probe comprising a target binding region consisting of or contained within the base sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7 or SEQ ID NO:8, wherein said probe forms a hybrid stable for detection with nucleic acid derived from *Trichomonas vaginalis* but not from *Trichomonas tenax* under assay conditions which include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M, and wherein said probe does not include bases in addition to the bases of said target binding region which participate in stable hybridization the *Trichomonas vaginalis* derived nucleic acid under said assay conditions.

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144. (New) The probe of claim 143, wherein the base sequence of said probe consists of or is contained within the base sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7 or SEQ ID NO:8.

145. (New) The probe of claim 143, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7 or SEQ ID NO:8.

146. (New) The probe of claim 143, wherein said probe is a self-hybridizing probe under said assay conditions and in the absence of nucleic acid derived from *Trichomonas vaginalis*.

147. (New) The probe of claim 146, wherein said probe comprises a pair of interacting labels.

148. (New) The probe of claim 143, wherein said probe is up to 50 bases in length.

149. (New) The probe of claim 143, wherein said probe comprises a detectable label.

150. (New) The probe of claim 143, wherein said target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety or a pseudo peptide backbone joins at least a portion of the bases of said target binding region.

151. (New) A composition comprising said probe of claim 143 hybridized to nucleic acid derived from *Trichomonas vaginalis*.

152. (New-Withdrawn) A method for determining the presence of *Trichomonas vaginalis*, said method comprising the steps of:

- a) contacting a test sample with said probe of claim 143; and

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b) determining whether said hybrid has formed as indication of the presence of *Trichomonas vaginalis* in said test sample.

153. (New) A detection probe for use in determining the presence of *Trichomonas vaginalis* in a test sample, said probe comprising a target binding region consisting of or contained within the base sequence of SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11 or SEQ ID NO:12, wherein said probe forms a hybrid stable for detection with nucleic acid derived from *Trichomonas vaginalis* but not from *Trichomonas tenax* under assay conditions which include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M, and wherein said probe does not include bases in addition to the bases of said target binding region which participate in stable hybridization the *Trichomonas vaginalis* derived nucleic acid under said assay conditions.

154. (New) The probe of claim 153, wherein the base sequence of said probe consists of or is contained within the base sequence of SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11 or SEQ ID NO:12.

155. (New) The probe of claim 153, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11 or SEQ ID NO:12.

156. (New) The probe of claim 153, wherein said probe is a self-hybridizing probe under said assay conditions and in the absence of nucleic acid derived from *Trichomonas vaginalis*.

157. (New) The probe of claim 156, wherein said probe comprises a pair of interacting labels.

158. (New) The probe of claim 153, wherein said probe is up to 50 bases in length.

159. (New) The probe of claim 153, wherein said probe comprises a detectable label.

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160. (New) The probe of claim 153, wherein said target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety or a pseudo peptide backbone joins at least a portion of the bases of said target binding region.

161. (New) A composition comprising said probe of claim 153 hybridized to nucleic acid derived from *Trichomonas vaginalis*.

162. (New-Withdrawn) A method for determining the presence of *Trichomonas vaginalis*, said method comprising the steps of:

- a) contacting a test sample with said probe of claim 153; and
- b) determining whether said hybrid has formed as indication of the presence of *Trichomonas vaginalis* in said test sample.

163. (New) A detection probe for use in determining the presence of *Trichomonas vaginalis* in a test sample, said probe comprising a target binding region consisting of or contained within the base sequence of SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 or SEQ ID NO:16, wherein said probe forms a hybrid stable for detection with nucleic acid derived from *Trichomonas vaginalis* but not from *Trichomonas tenax* under assay conditions which include a temperature of about 60°C and a salt concentration of about 0.6 M to about 0.9 M, and wherein said probe does not include bases in addition to the bases of said target binding region which participate in stable hybridization the *Trichomonas vaginalis* derived nucleic acid under said assay conditions.

164. (New) The probe of claim 163, wherein the base sequence of said probe consists of or is contained within the base sequence of SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 or SEQ ID NO:16.

165. (New) The probe of claim 163, wherein the base sequence of said probe consists of the base sequence of SEQ ID NO:13, SEQ ID NO:14, SEQ ID NO:15 or SEQ ID NO:16.

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166. (New) The probe of claim 163, wherein said probe is a self-hybridizing probe under said assay conditions and in the absence of nucleic acid derived from *Trichomonas vaginalis*.

167. (New) The probe of claim 166, wherein said probe comprises a pair of interacting labels.

168. (New) The probe of claim 163, wherein said probe is up to 50 bases in length.

169. (New) The probe of claim 163, wherein said probe comprises a detectable label.

170. (New) The probe of claim 163, wherein said target binding region includes at least one ribonucleotide modified to include a 2'-O-methyl substitution to the ribofuranosyl moiety or a pseudo peptide backbone joins at least a portion of the bases of said target binding region.

171. (New) A composition comprising said probe of claim 163 hybridized to nucleic acid derived from *Trichomonas vaginalis*.

172. (New-Withdrawn) A method for determining the presence of *Trichomonas vaginalis*, said method comprising the steps of:

- a) contacting a test sample with said probe of claim 163; and
- b) determining whether said hybrid has formed as indication of the presence of *Trichomonas vaginalis* in said test sample.